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Resistance of Perennials to Gases

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PRICES SUBJECT TO CHANGE

RESISTANCE OF PERENNIALS TO GASES
[U'stoychivost' mnogoletnikov protiv gazov]

by

V. G. Antipov

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Twenty species of perennial plants were set out over the winter in the vicinity of a chemical enterprise giving off hydrochloric acid fumes 1-2 times a month. The Oriental poppy, garden daisies, cornflowers, the columbine, the cup-and-saucer and the caespitose phlox did not survive under these conditions. The sweet William, pheasant's eye pink, adonis, larkspur, garden iris, lily-of-the-valley, yellow day-lily, garden lupin, garden peony, solidago, goldenrod, paniculate phlox and the plantain lily did survive.

The smoke and gases given off by some enterprises hamper tree and shrub planting operations to a considerable degree.

The decorative qualities of greenery depend in large measure on the proper selection of gas-resistant plants.

About 20 species of perennials were transplanted in autumn

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of 1953 at a distance of about 15 m from one of the chemical enterprises in the city of Leningrad in order to ascertain the gas resistance of perennial floral plants. The industrial plant gave off hydrochloric acid vapors in a very high concentration 1-2 times a month. Dying completely in the winter were: the Oriental poppy, garden daisies, cornflowers, the columbine, cup-and-saucers [Campanula medium], caespitose phlox and others. Twelve species of plants survived: the sweet William, the pheasant's eye pink, the adonis, the large-flowered larkspur, the garden iris, the lily-of-the-valley, the yellow day-lily, the garden lupin, the garden peony, the solidago, the goldenrod, the paniculate phlox and the lanceolate-leaved plantain lily.

The lanceolate-leaved plantain lily, the garden lupin, the large-flowered larkspur, the solidago and the pheasant's eye pink had an entirely decorative appearance.

Consequently plants can be selected for planting of greenery even under unfavorable conditions.